

## CLAIMS

1. A bias circuit comprising:  
a reference cell to generate a bias signal; and  
a first component coupled to the reference cell to adjust the bias signal by replicating a thermal characteristic of a second component that may be coupled to the bias circuit.
2. A bias circuit according to claim 1 wherein the first component is arranged in a feedback loop with the reference cell.
3. A bias circuit according to claim 1 wherein the feedback loop comprises a current mirror coupled between the first component and the reference cell.
4. A bias circuit according to claim 3 wherein the current mirror is arranged to load the reference cell.
5. A bias circuit according to claim 1 wherein the first component comprises a transistor.
6. A bias circuit according to claim 1 wherein the reference cell is a  $\Delta V_{BE}$  cell.
7. A bias circuit according to claim 1 wherein the reference cell and the first component are coupled together at a summing node.
8. A bias circuit according to claim 1 further comprising a clamping circuit coupled to the reference cell.
9. A method comprising:  
generating a bias signal with a reference cell; and  
adjusting the bias signal by replicating a thermal characteristic of a component that may be coupled to the bias circuit.

10. A method according to claim 9 wherein replicating the thermal characteristic comprises operating a replica component under similar operating conditions to the component that may be coupled to the bias circuit.
11. A method according to claim 9 wherein adjusting the bias signal comprises operating a replica component in a feedback loop with the reference cell.
12. A method according to claim 11 wherein operating a replica component in a feedback loop comprises mirroring current through the replica component into the reference cell.
13. A method according to claim 9 wherein adjusting the bias signal comprises summing a current from a replica component with a current from the reference cell.
14. A method according to claim 9 further comprising clamping a voltage of the reference cell.
15. A system comprising:  
a first circuit comprising a reference cell to generate a bias signal, and a first component coupled to the reference cell; and  
a second circuit coupled to the first circuit to receive the bias signal, the second circuit comprising a second component;  
wherein the first component is arranged to adjust the bias signal by replicating a thermal characteristic of the second component.
16. A system according to claim 15 wherein the first component is arranged in a feedback loop with the reference cell.
17. A system according to claim 15 wherein the feedback loop comprises a current mirror coupled between the first component and the reference cell.
18. A system according to claim 15 wherein the reference cell and the first component are coupled together at a summing node.

19. A system according to claim 15 wherein the first and second components have a matching thermal characteristic.

20. A bias circuit comprising:  
bias means for generating a bias signal; and  
replication means for replicating a thermal characteristic of a component that may be coupled to the bias circuit.

21. A bias circuit according to claim 20 wherein the replication means comprises a replication component that is matched to the component that may be coupled to the bias circuit.

22. A bias circuit according to claim 21 further comprising means for feeding a signal from the replication means back to the bias means.

23. A bias circuit according to claim 20 further comprising means for combining a signal from the bias means with a signal from the replication means.

24. A bias circuit according to claim 20 further comprising means for controlling the amount of compensation provided by the replication means.